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			ART UNIT 2143	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/822,022	Applicant(s) FUJII, KENICHI	
	Examiner Kishin G. Belani	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1. ☒ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/13/07, 1/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of foreign priority papers submitted on 01/24/2005 under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements submitted on 07-13-2006 and 01-10-2005 have been considered by the Examiner and made of record in the application file.

Claim Objections

Claims 8, 11 and 12 are objected to because of the following informalities:

In claim 8, replace "instruction means a result" by -- instruction means and a result --.

In claim 11, replace "the judgment by the judgment" by -- of judgment by the judgment --

In claim 12, replace "type of the error defectected" by -- type of the error detected --

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)**.

Consider **claim 1**, Taniguchi et al. show and disclose a communication apparatus (network print system shown in Fig. 1; column 3, lines 1-23 that disclose the details of the communication apparatus) comprising:
an instruction means for instructing a communication partner to transmit data (Flowchart of Fig. 9, step S914 which discloses that the printer P2 requests the computer C1 (both shown in Fig. 1) to transmit the selected print content data to the printer, thereby disclosing an instruction means for instructing a communication partner to transmit data).

However, Taniguchi et al. do not explicitly disclose instructing a communication partner to transmit data having a designated data length; and a discrimination means for discriminating a status of the communication apparatus, wherein the instruction means instructs the communication partner to interrupt data transmission by setting the designated data length to a predetermined length in accordance with a result of discrimination by the discrimination means.

In the same field of endeavor, Kawamura does disclose instructing a communication partner to transmit data having a designated data length (Fig. 25, payload header configuration of a single slot packet that discloses a five-bit length field that specifies the data length (0-31 bytes) of a payload packet (shown in Fig. 24, with the complete message layout shown in Fig. 21, and message component layouts in Figs. 22-26)); and

a discrimination means for discriminating a status of the communication apparatus (paragraphs 0006 and 0073 that disclose means to investigate the status of the communication apparatus),

wherein the instruction means instructs the communication partner to interrupt data transmission by setting the designated data length to a predetermined length in accordance with a result of discrimination by the discrimination means (Figs. 23, 25 and 26 that show a 1-bit Flow field used for flow control of data transmitted or received; paragraph 041 that discloses the use of Flow field and returning data to interrupt transmission of data temporarily; paragraph 0149 that further discloses a NULL packet

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that has no payload, thereby having data length field set to zero; such NULL packet being used for transmitting/receiving the status of a communication link).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide means for instructing a communication partner to transmit data having a designated data length; and a discrimination means for discriminating a status of the communication apparatus, wherein the instruction means instructs the communication partner to interrupt data transmission by setting the designated data length to a predetermined length in accordance with a result of discrimination by the discrimination means, as taught by Kawamura in the communication apparatus of Taniguchi et al., so as to be able to temporarily stop transmission of data in problem situations, until the problems have been resolved.

Consider **claim 2**, and **as it applies to claim 1 above**, Taniguchi et al., as modified by Kawamura, further disclose the claimed communication apparatus, wherein the instruction means instructs the communication partner to interrupt the data transmission by setting the designated data length to zero in accordance with the result of the discrimination by the discrimination means (in Kawamura reference, Figs. 23, 25 and 26 that show a 1-bit Flow field used for flow control of data transmitted or received; paragraph 041 that discloses the use of Flow field and returning data to interrupt transmission of data temporarily; paragraph 0149 that further discloses a NULL packet that has no payload, thereby having data length field set to zero; such NULL packet being used for transmitting/receiving the status of a communication link).

Consider **claim 3**, and **as it applies to claim 1 above**, Taniguchi et al., as modified by Kawamura, further disclose the claimed communication apparatus, wherein the discrimination means discriminates a storage capacity of a memory for storing data received from the communication partner (in Taniguchi et al. reference, flowchart block S603 in Fig. 6, that shows a determination being made as to having sufficient memory to handle the print job at hand).

Consider **claim 4**, and **as it applies to claim 1 above**, Taniguchi et al., as modified by Kawamura, further disclose the claimed communication apparatus, wherein the discrimination means discriminates whether an amount of data stored in a memory exceeds a predetermined value (in Taniguchi et al. reference, flowchart block S603 in Fig. 6; column 6, lines 49-60 which disclose that when it is determined that the memory available is less than the memory required to process jobs J1 through J5, an error message is displayed), and the instruction means sets the designated data length to zero in accordance with the result of the discrimination (in Kawamura reference, paragraph 0149 which discloses use of NULL packets comprised only of an access code and a packet header, but no payload (i.e. with data length field set to zero) being used for transmitting/receiving status of a communication link in a network).

Consider **claim 5**, and **as it applies to claim 1 above**, Taniguchi et al., as modified by Kawamura, further disclose the claimed communication apparatus, wherein the instruction means instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard (in Kawamura reference, paragraph 0003 which discloses that the short-distance Bluetooth wireless communication system accommodates profiles which specify how the data transmission is carried out for each data type to be transmitted).

Consider **claim 13**, Taniguchi et al. show and disclose a communication method for a communication apparatus (network print system shown in Fig. 1; column 3, lines 1-23 that disclose the details of the communication apparatus).

However, Taniguchi et al. do not disclose notifying a communication partner about a transmission data length; and discriminating a status of the communication apparatus, wherein the transmission data length that the communication partner is notified about is set at a predetermined length in accordance with a result of the discrimination.

In the same field of endeavor, Kawamura discloses notifying a communication partner about a transmission data length (Fig. 25, payload header configuration of a single slot packet that shows a five-bit length field that specifies the data length (0-31 bytes), and Fig. 26, payload header configuration of a multi-slot packet that discloses a nine-bit length field that specifies the data length (0-511 bytes) of a payload packet

(shown in Fig. 24, with the complete message layout shown in Fig. 21, and message component layouts in Figs. 22-26)); and

a discrimination means for discriminating a status of the communication apparatus (paragraph 0098 which discloses that if all packets to be transmitted are packets of 625 micro-seconds (i.e. single-slot packets), frequency hopping occurs every 625 micro-seconds; contrary to this, if multi-slot packets are used, transmission frequency is fixed (does not hop) while that slot continues, thereby disclosing a discrimination means for discriminating a status (single or multi-slot communication) of the communication apparatus);

wherein the transmission data length that the communication partner is notified about is set at a predetermined length in accordance with a result of the discrimination (Fig. 25, payload header configuration of a single slot packet that shows a five-bit length field that specifies the data length (32 bytes), and Fig. 26, payload header configuration of a multi-slot packet that discloses a nine-bit length field that specifies the data length (512 bytes) of a payload packet, the length of the packet being set based in accordance with a result of the discrimination).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide notification to a communication partner about a transmission data length; discriminate a status of the communication apparatus, wherein the transmission data length that the communication partner is notified about is set at a predetermined length in accordance with a result of the discrimination, as taught by Kawamura in the communication apparatus of Taniguchi et al., so as to enable the

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communication partner to transmit data packets of lengths suited for the current status of the communication apparatus.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **Werb (U.S. Patent Application Publication # 2003/0013146 A1)**.

Consider **claim 2**, and **as it applies to claim 1 above**, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, wherein the instruction means instructs the communication partner to interrupt the data transmission by setting the designated data length to zero in accordance with the result of the discrimination by the discrimination means.

In the same field of endeavor, Werb discloses the claimed communication apparatus, wherein the instruction means instructs the communication partner to interrupt the data transmission by setting the designated data length to zero in accordance with the result of the discrimination by the discrimination means (Fig. 1, 4-bit Data Length field 22; paragraph 0044, lines 19-24 that disclose the Data Length field 22, which is used to inform a Tag reader that the datagram includes User Data 24, and the length of the user data field. If no user data is included, the Data Length field is set to zero and the user data field is omitted).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide means for interrupting the data transmission by setting the designated data length to zero in accordance with the result of the discrimination by the discrimination means, as taught by Werb, in the communication apparatus of Taniguchi et al., as modified by Kawamura, so as to be able to temporarily stop transmission of data in problem situations, until the problems have been resolved.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **DPOF Version 1.10 (at the website http://panasonic.jp/dc/dpof_110/white_e.htm dated July 17, 2000, printed copy provided).**

Consider **claim 6**, and as it applies to **claim 1 above**, Taniguchi et al., as modified by Kawamura, disclose the claimed communication apparatus, except wherein the predetermined profile procedure is the Advanced Image Printing defined in the Basic Imaging Profile of the Bluetooth standard.

In the same field of endeavor, Panasonic Website listed above discloses the claimed Advanced Image Printing profile procedure defined in the Basic Imaging Profile of the Bluetooth standard (page 3, section 3-2 (Advanced functions)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the Advanced Image Printing profile

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procedure defined in the Basic Imaging Profile of the Bluetooth standard, as taught by DPOF Version 1.10 specifications, in the communication apparatus of Taniguchi et al., as modified by Kawamura, so as to be able to utilize advanced features of DPOF for functions associated with digital cameras and printers.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)** and further in view of **Horst et al. (US Patent Publication # 6,157,967)**.

Consider **claim 7**, and **as it applies to claim 1 above**, Taniguchi et al., as modified by Kawamura, further disclose the claimed communication apparatus, comprising:

a storage means for storing a data list received from the communication partner (in Taniguchi et al. reference, Fig. 4, NVRAM 18; column 2, lines 35-37 that describe the circuit configuration of a printer shown in Fig. 4; column 5, lines 45-50 which disclose that NVRAM 18 contains job list data, thereby disclosing a storage means for storing a data list received from the communication partner);

a judgment means for judging whether every data contained in the data list is acquired (in Taniguchi et al. reference, Fig. 10B which shows a display of the "Print Job Management Data", listing all the generated job IDs, thereby disclosing a judgment

means for judging whether every data contained in the data list is acquired; column 10, lines 46-58 that disclose the same details).

However, Taniguchi et al., as modified by Kawamura, do not disclose a detection means for detecting a data output error in the communication apparatus; and a disconnection request halt means for halting transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment means and a result of detection by the detection means.

In the same field of endeavor, Miyasaka et al. show and disclose a detection means for detecting a data output error in the communication apparatus (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control means 68 that provide error detection means for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage means; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus, as taught by Miyasaka et al., in the communication apparatus of Taniguchi et al., as modified by Kawamura, so that a user may be able to correct any recoverable errors, such as paper jams.

However, Taniguchi et al., as modified by Kawamura and Miyasaka et al., do not disclose a disconnection request halt means for halting transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment means and a result of detection by the detection means.

In the same field of endeavor, Horst et al. disclose a disconnection request halt means for halting transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment means and a result of detection by the detection means (column 51, lines 62- 67 which disclose a "HALT" command used for terminating message transmission between the CPU 12 and the I/O packet interface 16; column 52, lines 17- 22 which disclose a means to disable HALT command processing, by including a "halt enable register" in the configuration register 75 of the interface unit 24, thereby disclosing a disconnection request halt means for halting transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment means and a result of detection by the detection means).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a disconnection request halt means for halting transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment means and a result of detection by the detection means, as taught by

Horst et al., in the communication apparatus of Taniguchi et al., as modified by Kawamura and Miyasaka et al., so that in case of a data transmission error causing incomplete reception of data, a request for retransmission can be made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **Kanakubo (US Patent Publication # 5,897,252)**.

Consider **claim 8**, and **as it applies to claim 1 above**, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, except further comprising a detection means for detecting a data output error in the communication apparatus; and an instruction halt means for halting an instruction of the instruction means a result of detection by the detection means.

In the same field of endeavor, Kanakubo shows and discloses the claimed communication apparatus, further comprising:
a detection means for detecting a data output error in the communication apparatus (Abstract that discloses a printing apparatus with an error processor capable of detecting data output errors; Fig. 3, Error Processor 6; Fig. 4 that shows format of error information; flowchart of Fig. 5 that shows detecting and processing errors; column 5, lines 34-43 that disclose the same details); and

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an instruction halt means for halting an instruction of the instruction means as a result of detection by the detection means (Abstract that discloses a printing apparatus communicating the detected abnormal situation to a power controller, which turns the power off, thereby halting any instructions to the printer (communication apparatus); flowchart in Fig. 6, column 5, lines 44-58 that disclose a power controller 7, receiving error information from the error processor and after a set delay, turns the power off to the communication apparatus, thereby disclosing an instruction halt means for halting an instruction of the instruction means as a result of detection by the detection means).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus; and an instruction halt means for halting an instruction of the instruction means a result of detection by the detection means, as taught by Kanakubo, in the communication apparatus of Taniguchi et al., as modified by Kawamura, so as to prevent sending instructions to the communication apparatus when it is non-functional.

Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi et al. (US Patent Publication # 5,999,707), in view of Kawamura (U.S. Patent Application Publication # 2002/0155808 A1) and further in view of Miyasaka et al. (US Patent Publication # 6,362,896 B1).

Consider **claim 9**, and **as it applies to claim 1 above**, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, except further comprising a detection means for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection means.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:
a detection means for detecting a data output error in the communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control means 68 that provide error detection means for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage means; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors);
wherein the instruction means instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection means (Fig. 5, command interpreter 66 acting as the instruction means, host computer 61 acting as the communication partner;
column 20, lines 9-14 which disclose that printing can be resumed without destroying the data already received once the cause of the error is corrected, thereby disclosing

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that the host computer performs the data transmission from data following already received data in accordance with a result of error removal detection by the detection means).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from data following already received data in accordance with a result of error removal detection by the detection means, as taught by Miyasaka et al., in the communication apparatus of Taniguchi et al., as modified by Kawamura, so as to be able to continue print processing after recovery from error such as out-of-paper or paper jam.

Consider **claim 12**, and **as it applies to claim 1 above**, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, except further comprising a detection means for detecting a data output error in the communication apparatus and removal of the error; and a judgment means for a type of the error detected by the detection means wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:

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a detection means for detecting a data output error in the communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control means 68 that provide error detection means for detecting a data output error in the communication apparatus; column 4, lines 7-15 which disclose error state flag storage means; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors);

a judgment means for a type of the error detected by the detection means (Fig. 5, Control means 68 which receives and analyzes the type of errors detected by detectors 71, 47 and 54; flowchart in Fig. 13, decision blocks 211 and 213 disclosing a judgment means for a type of the error detected by the detection means; column 20, lines 9-14 that disclose the same details);

wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means (Fig. 5, command interpreter 66 acting as the instruction means, host computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus and removal of the error, and a judgment means for a type of the error detected by the detection means, wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means, as taught by Miyasaka et al., in the communication apparatus of Taniguchi et al., as modified by Kawamura, so as to be able to continue print processing after recovery from a recoverable error.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **Shigemori (U.S. Patent Publication # 6,466,963 B1)**.

Consider **claim 10**, and as it applies to **claim 1** above, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, except further comprising a detection means for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection means.

In the same field of endeavor, Shigemori discloses the claimed communication apparatus, further comprising a detection means for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection means (Fig. 7, time out block 340 that starts a countdown timer with a set period within which if the transmission is not complete, the timer is reset back to the set period and a retransmission is initiated; this process being repeated for a fixed number of times, before aborting with an error; the use of timer comprising a detection means for detecting a data output error in the communication apparatus and upon removal of the error (resetting and restarting of timer), repeating retransmission being indicative of instruction means instructing the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection means; column 6, lines 55-67 and column 7, lines 1-22 that disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus and removal of the error, wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection means, as taught by Shigemori, in the communication

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apparatus of Taniguchi et al., as modified by Kawamura, so as to be able to recover from a temporary loss of transmission capability.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Taniguchi et al. (US Patent Publication # 5,999,707)**, in view of **Kawamura (U.S. Patent Publication # 5,617,539)** and further in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)** and further in view of **Chiba et al. (US Patent Publication # 6,665,088 B1)**.

Consider **claim 11**, and **as it applies to claim 1 above**, Taniguchi et al. as modified by Kawamura, disclose the claimed communication apparatus, except further comprising a detection means for detecting a data output error in communication apparatus and removal of the error; and a judgment means for, when the detection means detects the error, judging whether already received data is lost, wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:
a detection means for detecting a data output error in communication apparatus and removal of the error (Fig. 5, detectors 71, 47 and 54 as well as status memory 77 and control means 68 that provide error detection means for detecting a data output error in

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the communication apparatus; column 4, lines 7-15 which disclose error state flag storage means; column 5, lines 12-20 which disclose recoverable and non-recoverable error types, recoverable errors being the error types that a user can correct the cause of the error, such as a paper jam, thereby allowing removal of the recoverable errors); and wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means (Fig. 5, command interpreter 66 acting as the instruction means, host computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a detection means for detecting a data output error in the communication apparatus and removal of the error, and wherein the instruction means instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment means and a result of error removal detection by the detection means, as taught by Miyasaka et al., in the communication apparatus of Taniguchi et al., as

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modified by Kawamura, so as to be able to continue print processing after recovery from a recoverable error.

However, Taniguchi et al., as modified by Kawamura and Miyasaka et al., do not disclose a judgment means for, when the detection means detects the error, judging whether already received data is lost.

In the same field of endeavor, Chiba et al. show and disclose the claimed communication apparatus, further comprising a judgment means for, when the detection means detects the error, judging whether already received data is lost (column 10, lines 13-27 which disclose a buffer underrun error, resulting in retransmission of all the data starting at the first band, and including all subsequent bands of image data)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a judgment means for, when the detection means detects the error, judging whether already received data is lost, as taught by Chiba et al., in the communication apparatus of Taniguchi et al., as modified by Kawamura and Miyasaka et al., so as to be able to continue print processing after recovery from a non-recoverable error, requiring retransmission of the previously transmitted data.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kishin G. Belani whose telephone number is (571) 270-1768. The Examiner can normally be reached on Monday-Thursday from 6:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

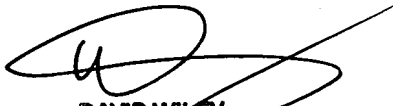
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K.G.B./kgb

October 10, 2007



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